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STUDIES OF PERUVIAN BIRDS. XVII[1]

NOTES ON THE GENERA *SYNDACTYLA*, *ANABACERTHIA*, *PHILYDOR*, AND *AUTOMOLUS*

BY JOHN T. ZIMMER

As in previous papers, the names of colors are capitalized when direct comparison has been made with Ridgway's 'Color Standards and Color Nomenclature.'

I am greatly indebted to Mr. N. B. Kinnear of the British Museum for notes on certain critical specimens in that institution; also to Dr. J. Domaniewski of the Warsaw Museum for the loan of important material used in the following studies.

Syndactyla rufosuperciliata cabanisi (Taczanowski)

Anabazenops cabanisi TACZANOWSKI, 1874, P. Z. S. London, p. 528—Pumamarca, Perú; ♂; type formerly in Warsaw Mus., now lost.

The present form ranges throughout the Subtropical Zone of Perú except on the Pacific side of the Andes where another subspecies replaces it. There are several gaps in the known distributional line, but these should be filled when more extensive collections are obtained in the critical regions.

An adult male from Chaupe, near the Río Chinchipe, northern Perú, is very slightly lighter in dorsal coloration than the remainder of the series and has the throat a trifle more deeply yellowish, in which respects it shows a slight tendency toward the form of the coastal slopes.

A young female from Chaupe has the upper parts somewhat darker than any of the adults, and the borders of the pale markings of the under parts darker and more sooty, especially at the tips of the feathers. It is quite readily separable from a young specimen of *similis* by its much darker upper parts and somewhat warmer under parts.

A nearly adult male from Roquefalda, Prov. Cochabamba, Bolivia, is more like the adults, though it is darker above and below. It is to be referred to *cabanisi*, although the latter form appears to reach the Amazonian drainage at Vermejo, near Santa Cruz, from which we have a

[1]Earlier papers in this series comprise American Museum Novitates Nos. 500, 509, 523, 524, 538, 545, 558, 584, 646, 647, 668, 703, 728, 753, 756, and 757.

single male. Peruvian records are from Pumamarca, Tambillo, Cococho, Achamal, Chirimoto, and Ninabamba.

I am forced to revert to the name *Syndactyla* for this genus through the provision of the 'International Code of Zoological Nomenclature' which considers this name as not preoccupied by *Syndactylus*.

Syndactyla rufosuperciliata similis (Chapman)

Xenoctistes rufosuperciliatus similis CHAPMAN, 1927 (February 19), Amer. Mus. Novitates, No. 250, p. 3—Chugur, west of Cajamarca; ♂; Amer. Mus. Nat. Hist.

The extremely close resemblance of this form to typical *rufosuperciliata* has been pointed out by Dr. Chapman in the original description. It is a good example of the resemblance not uncommonly found in conspecies living at opposite peripheral points in the specific range.

A young bird of undetermined sex is rather paler and grayer above than the adults, with the superciliary stripe notably paler. The under parts have the feathers all strongly margined with sooty brown, leaving the central areas much more sharply defined than in the adults though of a lighter, less buffy tone than in a young female of *cabanisi* described on a preceding page.

This subspecies is known from a single locality on the western side of the western Andes in Perú.

SPECIMENS EXAMINED

S. r. similis.—PERÚ: Chugur, 2 ♂ (incl. type), 1 ♀; 1 (?).

S. r. cabanisi.—PERÚ: Chaupe, 1 ♂, 1 ♀; Uchco, 1 ♀; Chelpes, 1 ♂, 1 (?); Tulumayo, 1 ♀; Santo Domingo, 1 ♂, 1 ♀. BOLIVIA: Roquefalda, 1 ♂.

S. r. oleaginea.—BOLIVIA: Vermejo, 1 ♂. ARGENTINA: Sarmiento, 2 ♂, 1 ♀; Tafi Trail, Tucuman, 4 ♂, 2 ♀; above San Pablo, Tucuman, 9 ♂, 12 ♀.

S. r. acrita.—PARAGUAY: Colonia Independencia, 3 ♂, 1 ♀. ARGENTINA: Puerto Segundo, Misiones, 1 ♀; Santa Ana, Misiones, 1 ♂. BRAZIL: São Lourenço, Rio Grande do Sul, 1 ♂.

S. r. rufosuperciliata.—BRAZIL: São Paulo, Itaituba, 1 ♂; Rio, Therezopolis, 1 ♀; Maceiras, 3 ♂, 2 ♀; alto Itatiaya, 1 ♀; La Raiz, 1 ♀.

Syndactyla subalaris colligata, new subspecies

TYPE from Chaupe, northern Perú (between Tamborapa and San Ignacio), altitude 6100 feet. Adult female collected April 16, 1923, by Harry Watkins.

DIAGNOSIS.—Similar to *S. s. mentalis*, of eastern Ecuador, in general appearance, but chin and throat as broadly immaculate yellowish as in *S. s. subalaris*, and pale areas a little deeper yellow; head and mantle strongly streaked as in *mentalis* but clearer brown, without the fuscous tinge of *mentalis*, and more sharply defined against the blackish area of the hind neck and anterior part of mantle.

RANGE.—Subtropical Zone between the Chinchipe and Huancabamba rivers, northwestern Perú.

DESCRIPTION OF TYPE.—Top of head blackish, with strong shaft-streaks of Straw Yellow; hind neck similar, but with streaks much broader and a little paler yellow; mantle Raw Umber, tinged with Prout's Brown and strongly streaked like the head; rump on upper portion brown like the mantle but with the streaks reduced to inconspicuous yellowish shaft-lines; posteriad, the rump becomes bright Auburn × Chestnut, continued more deeply on the upper tail-coverts where the shaft-lines become obsolete on the longest feathers. Lores whitish with a slight yellowish tinge; the most lateral of the streaks on the crown forming a not especially conspicuous superciliary stripe, slightly wider and less deeply yellowish over the auriculars which are of the same pale yellowish color, margined with dusky; malar region with broad buffy shaft-stripes, margined with dark brown; chin and throat broadly Pinard Yellow, immaculate; breast and sides with broad shaft-stripes the color of the throat, laterally margined with dark Dresden Brown; the stripes continued down the belly, reduced in size especially in the middle of the belly; flanks and femoral tracts warm Dresden Brown with streaks nearly or quite obsolete; shorter under tail-coverts warm Dresden Brown, broadly striped with yellow along shafts; longest coverts Auburn × Sanford's Brown on exposed portions, this color also tinging the adjacent, more basal ones. Wings sooty, with exposed outer surfaces Saccardo's Umber; median and lesser upper coverts with dusky centers; inner ones with pale shaft-streaks; primary-coverts darker than the other upper wing-coverts, blackish with outer margins near Clove Brown; inner margins of remiges Cinnamon-Buff; under primary-coverts the same; rest of under wing-coverts and axillars and the carpal margin Ochraceous-Orange × Ochraceous-Tawny. Tail light Chestnut × Bay. Maxilla (in dried skin) black; mandible dull blackish along tomia; dull yellowish along gonys; feet dusky brown. Wing, 87.5 mm.; tail, 82; exposed culmen, 16.5; culmen from base, 20.75; tarsus, 21.

REMARKS.—Young females are much like the adult above though with some of the pale markings on the top of the head variably bright rufescent. Chin and upper throat pale yellowish, with strong dusky tips, the lateral and lowermost feathers tinged with orange-ochraceous; chest, posterior part of malar region, breast, and sides orange-ochraceous with some trace of pale shaft-lines or areas; lower under parts much as in the adult but less strongly striped; wings and tail about as in the adult.

This form clearly combines the characters of *mentalis* and *subalaris* though it is not intermediate in the sense that its characters are halfway between those of the other two forms; above, it is a strongly marked *mentalis;* below it is a strongly marked *subalaris* with an unusually strong yellowish tone.

In *mentalis* the yellowish gular patch is quite small and rounded posteriorly, and the feathers of the most of the lower throat are broadly margined with olive brown, with a decidedly spotted effect. In the present form, almost the whole throat is broadly yellow without dark margins above the chest, and on the chest and breast the pale marks are broader than in *mentalis,* with a more striped appearance.

Syndactyla subalaris ruficrissa (Carriker)

Xenoctistes subalaris ruficrissa Carriker, 1930, Proc. Acad. Nat. Sci. Phila., LXXXII, p. 372—Eneñas, Perú; ♀; Acad. Nat. Sci. Phila.

I have not seen this form, described from central Perú. It is said to have the gular patch even more restricted than in *mentalis*, uropygium and crissum more strongly rufescent, and the back more extensively blackish. In these respects there seems to be a close approach to the appearance of *Thripadectes holostictus* though the latter is not so prominently streaked on the belly as the members of the *Syndactyla subalaris* group. The larger, heavier, and more broadly ridged bill of *ruficrissa* also must suggest *Thripadectes* though the resemblance is probably only superficial.

Specimens Examined

S. s. lineatus.—Costa Rica: 1 ♂. Panamá: Boqueron, Chiriqui, 2 ♂.

S. s. tucarcunae.—Panamá: east slopes of Mt. Tacarcuna, 5 ♂ (incl. type), 5 ♀; Tacarcuna, 1 ♂, 2 ♀, 1 (?).

S. s. subalaris.—Colombia: Miraflores, 1 ♂ (type of *X. s. columbianus*); San Antonio, 1 (?); Las Lomitas, 2 (?); Río Cauca, 1 ♀; La Frijolera, 1 ♂; Gallera, 1 (?); Salencio, 1♂; Cerro Munchique, 1 (?). Ecuador: Coco, Río Chimbo, 1 ♂; Zaruma, 1 ♂, 2 ♀, 1 (?); El Chiral, 2 ♂, 2 ♀; Mindo, 1 ♂; Río Blanco, below Mindo, 1 (?).

S. s. colligata.—Perú: Chaupe, 3 ♀ (incl. type).

S. s. striolatus.—Colombia: La Candela, 2 ♀; Buena Vista, above Villavicencio, 1 ♀.

S. s. mentalis.—Ecuador: Baeza, 1 ♂; lower Sumaco, 3 ♂, 1 ♀; Oyacachi, 1 ♂.

Anabacerthia striaticollis montana (Tschudi)

A(nabates) montanus Tschudi, 1844 (May), Arch. Naturg., X (1), p. 295—Perú; Mus. Neuchâtel.

Xenicopsoides montanus jelskii Stolzmann, 1926 (December 31), Ann. Zool. Mus. Pol. Hist. Nat., V, p. 221—Maraynioc, Perú; Warsaw Mus.

Specimens from northern Perú and eastern Ecuador show no recognizable differentiation from typical examples taken in central Perú although there is an apparent hiatus in the range between these two areas.

Through the kindness of Dr. Domaniewski I have been able to examine the type of "*Xenicopsoides montanus jelskii*" which proves to be similar to true *montana* in all respects except that of color. The specimen is warmer brown than fresh *montana* and has the pale areas white instead of yellow. In other words, the yellow pigments of *montana* are lacking throughout the plumage. Since yellow lipochromes are soluble in alcohol, it is possible that the type of *jelskii* was at one time preserved in spirits. The feathers are somewhat harsh and dry in appear-

ance and some of the remiges are still bedraggled, and the feet are bleached and dry exactly as they become when alcoholic specimens are later dried.

The original description of *jelskii* gives the tail-length as 87 mm., while Taczanowski, who recorded the specimen as "*Philydor montanus*," gives it as 84. Actually the tail of the type is only 65 mm.; the larger figures were evidently secured by measuring to the posterior end of the false body (the specimen was at one time mounted) instead of to the base of the tail.

In the original account of "*jelskii*," Stolzmann asserted that Taczanowski had omitted to list this specimen in his account of Jelski's collection (1874, Proc. Zool. Soc. London). As a matter of fact he did list it on p. 528 under the name of "*Philydor montanus*" although he erroneously credited it to Pumamarca. He gives the reference under "*P. montanus*" in the 'Ornithologie du Pérou' (1884, II, p. 153), where the description is that of "*jelskii*." Specimens from Pumamarca and Amable Maria were recorded and later described by Taczanowski under the name "*striaticollis*" and, from the description, obviously are typical *montana*.

Since "*jelskii*" and *montana* come from the same region, the conclusion is that "*jelskii*" is a discolored example of *montana*, differing probably because of postmortem change in coloration.

Peruvian localities for *montana*, other than those from which material has been herewith examined, are Amable Maria, Pumamarca, Ropaybamba, and Garita del Sol.

Anabacerthia striaticollis yungae (Chapman)

Philydor montanus bolivianus Chapman (*nec Philydor rufus bolivianus* Berlepsch, 1907), 1923 (August 28), Amer. Mus. Novitates, No. 86, p. 15—Locotal, Bolivia; ♂; Amer. Mus. Nat. Hist.

Philydor montanus yungae Chapman, 1923 (November 19), Amer. Mus. Novitates, No. 96, p. 12—new name for *P. m. bolivianus* Chapman.

As noted by other workers, specimens from southeastern Perú are referable to the Bolivian form. Records are from San Antonio and Caradoc in addition to the localities from which material is now at hand.

Specimens Examined

A. s. montana.—Perú: Chelpes, 3 ♂; Utcuyacu, 1 ♂, 2 ♀; Chaupe, 3 ♂, 1 ♀; Lomo Santo, 1 ♂, 1 ♀, 1 (? = ♀); Huarandosa, 1 ♂; San Ignacio, 1 ♀; Maraynioc, 1 (?)[1] (type of *jelskii*). Ecuador: Sabanilla, 1 ♂, 1 ♀; Guayaba, 1 ♀; lower Sumaco, 4 ♂; lower Río Sardinas, 1 ♀; Río Oyacachi, 1 ♂.

[1]Specimen in Warsaw Museum.

A. s. yungae.—Bolivia: Locotal, 2 ♂ (incl. type), 2 ♀, 1 (?); Yungas, Prov. Cochabamba, 1 ♂, 2 (?). Perú: Inca Mine, 1 ♂; Santo Domingo, 2 ♀; Río Inambari (2200 feet), 3 ♀.

Philydor pyrrhodes (Cabanis)

A(nabates) pyrrhodes Cabanis, 1848, in Schomburgk, 'Reisen Brit. Guiana,' III, p. 689—(coast of) British Guiana.

This widely ranging species appears to be indivisible into recognizable subspecies. There is a certain amount of individual variation in the warmth of color on the mantle and the depth of rufous on the tail. The birds from north of the Amazon (Perú to Colombia, eastern Brazil, and the Guianas) are more deeply hued than those from south of it (Teffé to Pará), but the difference is sometimes very slight and appears to be unworthy of distinction by name.

In spite of the similarity of this species to *P. e. erythrocercus* and *P. e. fuscipennis*, there appears to be no very close relationship. The present species has various points of difference which are of some significance. The lower auriculars and malar region are uniformly deep ochreous, not dusky, and there are no whitish shaft-streaks on the middle auriculars; the remiges are a little broader at the tips and the tertials are suffused with the color of the back, not clear, dark gray; the occipital feathers are long and form a semblance to a crest; the tail is graduated for one-fourth to one-fifth of the length, not merely one-tenth; the throat-feathers are whitish or ochreous basally, not gray; and the plumage in general is longer and fuller. The *erythrocercus* group presents the opposite of these features.

The only published record of this species from Perú is from Pebas, to which the present collection adds one locality which, like Pebas, is on the north bank of the Amazon.

Specimens Examined

P. pyrrhodes.—British Guiana: Supenaam, 1 (?). Venezuela: Boca de Sina, 1 ♂; (western) foot of Mt. Duida, 1 ♂; mouth of Río Ocama, 2 ♂, 1 ♀, 1 (?); El Merey, 1 ♂; Solano, 1 ♂. Colombia: La Morelia, 1 ♀. Ecuador: lower Río Suno, 2 ♂; upper Río Suno, 1 ♂; mouth of Río Curaray, 2 ♀; "Napo River," 1 (?) Perú: Puerto Indiana, 1 ♂. Brazil: Teffé, 1 ♂; Borba, 2 ♂; Igarapé Auará, 1 ♂, 1 ♀; Rio Tapajoz, Caxiricatuba, 1 ♂, 1 (? = ♀); Tauarý, 1 ♀; Rio Tocantins, 1 ♀; Utinga, near Pará, 1 ♀; Rio Negro, Santa Isabel, 1 ♂.

Philydor rufus bolivianus Berlepsch

Philydor columbianus bolivianus Berlepsch, 1907 (February), Ornis, XIV, p. 366—Santa Cruz de la Sierra, Bolivia; Berlepsch Coll., Frankfort Mus.

The range of this bird in Perú is extended somewhat by the present collections. One male from Lagarto, upper Río Ucayali, and a male and a

female from Río Seco, west of Moyobamba, appear to be referable to this form. The Lagarto bird is slightly darker on the back and on the crown and nape than Bolivian examples, and has the posterior portion of the ochraceous forehead slightly varied with grayish lateral margins on the feathers. The Río Seco skins both have the forehead less strongly ochraceous than Bolivian specimens, approaching, in this respect, the west-Ecuadorian form *riveti*, but the whole coloration is paler than in that form and is nearer the hues of the Bolivian skins. The relationship of these northern birds is thus obviously closer to *bolivianus* than to *riveti*.

In an earlier paper (1930, Field Mus. Nat. Hist. Publ., Zool. Ser., XVII, p. 348) I noted a similar tendency toward a reduction of ochraceous color on the forehead in four examples from the upper Huallaga. The differences are not pronounced enough, however, to warrant the recognition of a new form based solely on this character. Apparently the more northern birds show a trend toward *riveti* while the southeastern examples approach the west-Brazilian form next to be discussed. The specimen from Lagarto is so equivocal that it would be difficult to place with certainty should a Peruvian form be recognized as distinct from the Bolivian.

An examination of considerable material from both eastern and western Brazil shows, on the other hand, that there is a definite division between *rufus* of the eastern coast and specimens from Matto Grosso. It is not perfectly clear whether the coastal birds do not deserve further division, since skins from Santa Catharina, Paraná, and Rio Grande do Sul, Brazil, and from Paraguay are somewhat paler on the back and darker on the forehead and superciliaries than individuals from São Paulo and Espirito Santo. However, several examples from near Rio de Janeiro are not so noticeably different from the more southern birds, and, since Rio de Janeiro, the proposed type locality of *rufus*, lies between São Paulo and Espirito Santo, the constancy of the characters suggested is open to question.

Accepting all the eastern birds as *rufus*, Matto Grosso specimens are recognizable by their warmer back, deeper forehead and paler crown, and may be known as follows.

Philydor rufus chapadensis, new subspecies

TYPE from Chapada, Matto Grosso, Brazil. No. 33,639, American Museum of Natural History. Adult male collected July 15, 1885, by H. H. Smith.

DIAGNOSIS.—Similar to *P. r. rufus* of eastern Brazil, but back more warmly brown, crown and nape paler gray, less sharply defined from the back, and forehead deeper ochraceous with spots of the same color usually indicated at the tips of the

anterior and central crown feathers; bill heavier and apparently paler; rufous of wings averaging paler. Differs from *P. r. bolivianus* of northern Bolivia by paler back, clearer gray crown and nape, and more sharply defined frontal band.

RANGE.—Northern Matto Grosso, in the vicinity of Chapada.

DESCRIPTION OF TYPE.—Forehead deep Ochraceous-Buff, rather sharply defined from the light Mouse Gray of the crown and nape, though the anterior feathers of the crown have small dull ochraceous spots; the color of the forehead is continued posteriorly over the eyes to the sides of the neck in a broad superciliary stripe; back light Saccardo's Umber, approaching Isabella Color on the rump and upper tail-coverts. Entire under parts bright Ochraceous-Buff, deeper anteriorly and somewhat tinged with brownish on the flanks; a narrow postocular line of Mouse Gray on the upper border of the auriculars separating the superciliary stripe and the rest of the auriculars and continuous with the gray of the hind neck. Remiges largely Kaiser Brown × Hazel with dusky areas at the tips of the outer secondaries and inner primaries, increasing in extent toward the outer primaries where the rufous is restricted to the base of the inner web; tertials with a slight brownish wash; upper wing-coverts slightly lighter rufous, but alula and primary-coverts dusky, with margins very narrowly dull rufescent; under wing-coverts and axillars like the throat. Tail dark Ferruginous × Hazel with a wash of the color of the rump on the basal portion of the lateral margins. Maxilla horn-color (in dried skin); mandible dull yellowish; feet light brown. Wing, 96 mm.; tail, 92; exposed culmen, 16.25; culmen from base, 22.25; tarsus, 23.75.

REMARKS.—Females like the males but slightly smaller. Wings, 83–90 mm.; tail, 87–88; culmen from base, 20.25–22.25; tarsus, 22.5–24. Males have the wing, 91–101 mm.; tail, 88.5–92; culmen from base, 22.5–23; tarsus, 23.5–24.5.

SPECIMENS EXAMINED

P. r. rufus.—BRAZIL: Serra do Itatiaya, Ponto Marombe, 1 ♂; Monte Serrat, 2 ♀; Espirito Santo, Serra do Caparão, 1 ♂, 1 ♀; São Paulo, Alto de Serra, 1 ♂; São Sebastião, 1 ♂[1]; Fazenda Cayoa, 1 ♂[1], 2 ♀[1]; Paraná, Corvo, 1 ♀; Tibagy, 2 ♂, 2 ♀, 2 (?); Santa Catharina, Salto Pirahy, 2 ♂; Ouro Verde, 2 ♂, 1 ♀, 1 (?); Rio Grande do Sul, Hansa, 1 ♀; Lagoa Vermelha, 1 ♂, 2 ♀; Erebango, 1 ♀; Nonohay, 4 ♂, 2 ♀, 2 (?). PARAGUAY: east of Villa Rica, 2 ♂; Abai, 1 ♂, 1 (?).

P. r. chapadensis.—BRAZIL: Matto Grosso, Chapada, 11 ♂ (incl. type), 5 ♀.

P. r. bolivianus.—BOLIVIA: Vermejo, 3 ♂, 1 ♀. PERÚ: Lagarto, upper Ucayali, 1 ♂; Río Seco, west of Moyobamba, 1 ♂, 1 ♀; Huachipa, 1 ♂[1]; Vista Alegre, 3 ♀[1].

P. r. riveti.—ECUADOR: Gualea, 1 ♂; Mindo, 1 ♂.

Philydor ruficaudatus (D'Orbigny and Lafresnaye)

Anabates ruficaudatus D'ORBIGNY AND LAFRESNAYE, 1838, 'Syn. Av.,' 2, in Mag. Zool., VIII, cl. 2, p. 15—Yuracares, Bolivia; Paris Mus.

Anabates ruficaudus SCLATER, 1858, P. Z. S. London, XXVI, p. 456—Gualaquiza, Ecuador—(*nom. emend.*).

[1]Specimens in Field Museum of Natural History, Chicago.

Philydor subflavescens CABANIS, 1873, Jour. für Orn., XXI, p. 66—Monterico, n. e. Ayacucho, Perú; Berlin Mus.

Anabazenops immaculatus ALLEN, 1889, Bull. Amer. Mus. Nat. Hist., II, p. 92—northern Bolivia; Amer. Mus. Nat. Hist.

Philydor euophrys BERLEPSCH AND STOLZMANN, 1896, P. Z. S. London, p. 375, in text—La Gloria, Perú; ♀ (juv.); Warsaw Mus.

Twenty-six specimens from various localities show no particular divergencies correlated with distribution. Several examples are in immature plumage and show such lack of certain characters attributed to the young of this species that it is evident there has been some earlier confusion with another species. The conflict proves to have been with *subfulvus*, and a full discussion will be found in the treatment of that form.

I have been unable to find any close relatives of *ruficaudatus*. Some of its characteristics are such that it could find an equally suitable position in the genus *Anabacerthia*, but in other respects it might be out of place there. In any case it appears to bear no very close relationship with *subfulvus*.

Owing to the confusion which has existed, it is impossible to be certain of all the records which properly belong to this species, but with the help of occasional descriptive notes, the following Peruvian localities have been taken to belong here: Monterico, La Gloria, Cosñipata, and Yahuarmayo. Other localities are shown in the list of material examined, which follows the account of the next species.

Philydor erythrocercus subfulvus Sclater

Philydor subfulvus SCLATER, 1861 (November), P. Z. S. London, p. 377—Gualaquiza, Ecuador.

A series of twenty-two specimens of this form from northern Perú, eastern Ecuador, and southeastern Colombia, together with twenty-six skins of *Philydor ruficaudatus*, has permitted a careful analysis of the characters which are distinctive of the two groups, in which there appears to have been some confusion. Both occur together over a considerable range.

The series of *ruficaudatus* contains several specimens of undoubted immaturity, judging by the acuteness of the rectrices and the comparative fluffiness of the plumage, but without exception they fail to show any definite rufescence on the margins of the upper tail-coverts as described for the young of this species. The back is, furthermore, not brownish but a duller or grayer tone of olive green than is shown by the adults. The under parts are hardly more fluffy than in the adults, but are a little

paler and duller yellow of the same hue as in the full-grown birds. The sides of the head are, however, different, and are inclined to bright orange-ochraceous on the lores, superciliary stripe, lower half of the auriculars, and a malar stripe reaching to the base of the bill. This stripe is rather sharply defined from the paler yellow of the throat which encroaches on the lower margin of the malar space. The under wing-coverts are deep buff but are hardly darker than the inner margins of the remiges which, in turn, are rather sharply defined from the dark portion of the web.

The immature specimens of *P. e. subfulvus* are quite distinct (I exclude *P. e. ochrolaemus* of southeastern Perú and Bolivia which is a separate form as will be discussed later). Here the upper tail-coverts are strongly rufous with only an ill-defined dusky area near the shaft; the lower rump is suffused with rufous; the mantle and top of the head are brown; the superciliary stripe is orange-ochraceous but the malar region is rather exactly like the throat or, if slightly deeper than the gular midline, it grades insensibly into it. Posteriorly, the malar area is more deeply tinged with orange-rufous and this color is carried behind the auriculars to the sides of the neck and even to the hind neck, while anteriorly it becomes diluted. The entire group of auricular feathers is relatively uniformly blackish (sometimes dark brown like the top of the head), with pale shafts or shaft-stripes, and this dusky color is carried beneath the eye to the base of the mandible in a narrow stripe on the upper margin of the malar region. The under parts are like the lower throat, buffy or orange-ochraceous as the case may be, with the under tail-coverts quite strongly rufescent and the flanks brownish. The under wing-coverts are deeply cinnamon-rufous, notably more intensely colored than the inner margins of the remiges which are not quite so sharply defined as in *P. ruficaudatus*.

These characters are adequate to place any of the young birds. The interesting discovery has been that the adults of *subfulvus* are quite easily separable from those of *P. e. ochrolaemus* which, in superficial respects, they resemble much less than they do the adults of *ruficaudatus*. The young of *subfulvus* are relatively similar to the adults of *ochrolaemus* except for more grayish, less rufescent, wings; darker and duller dorsum; less extensive rufous color on the rump; and paler throat. The adults of *subfulvus* have the under parts dull pale buff; without any orange tints (though without the primrose-yellow tints of *ruficaudatus*); the back is more olive than that of the juvenals (but decidedly browner than in *ruficaudatus*); the uropygium is about as in the juvenals, decidedly rufescent, at least on the margins and tips of the upper tail-

coverts (and molting examples are renewing this feature unaltered); the superciliary stripe is deeper buff than the throat; the dusky area involving all the auriculars, the subocular space, and a line over the malar area to the base of the mandible is as in the juvenals, in decided contrast to the condition in *ruficaudatus*.

Taczanowski's description of this form in the 'Ornithologie du Pérou,' II, p. 152, is very good for the adult and belongs where he placed it, not under *ruficaudatus* where it has since been transferred.

One feature, which undoubtedly has much to do with the confusion, is that the adult plumage of *subfulvus* is rather looser in texture than that of adult *ruficaudatus*, which gives a wrong impression of immaturity. The immature *subfulvus* has even more decomposed plumage.

I have no hesitation in assigning *subfulvus* to the *erythrocercus* group on examination of nearly a hundred examples of the two forms hitherto assigned to this group. The general resemblance is very striking in almost all respects. The same facial characteristics exist in distinction to *ruficaudatus;* the contrasting areas of the under side of the wing are similar; the texture of the plumage is the same; and other features are shared in common. True *erythrocercus* is much more olive in color, but *lyra* is decidedly brownish, though both these have more rufous on the uropygium than does *subfulvus*. A single immature example of *erythrocercus*, from Faro, Brazil, is strikingly similar to the juvenals of *subfulvus*, with the superciliary stripe, sides of neck, and under tail-coverts notably orange-rufous.

In general, *subfulvus* has a shorter tail than *ruficaudatus* (♂, 59–69.25 mm. as against 69–77.5; ♀, 55–67 as against 63–65.5). The measurements given by Sclater for the type of *subfulvus* show the tail 2.8 inches (=71.12 mm.), which is larger than in any of the examples that I have referred to that form. However, Mr. Kinnear writes me from the British Museum that this type has the auriculars all dark in color like the top of the head, with a dark line continued forward below the eye to the base of the bill; the malar region is like the throat, not decidedly more orange-rufous; the rump is somewhat more rufescent than the mantle and the upper tail-coverts distinctly more so though not so markedly rufous as in an example from Cosñipata. These points leave no doubt of its agreement with the series now before me which I have referred to *subfulvus*. The Cosñipata bird is equally certainly referable to *ochrogaster* which differs from *subfulvus* in the manner stated.

Mr. Kinnear further remarks that a specimen of *P. ruficaudatus*, also from Cosñipata, has a dark line below the eye as in *subfulvus*.

Among the specimens of *ruficaudatus* at hand I can find none in which this line is so well developed as in most *subfulvus*, although an occasional skin shows a suggestion of such marking very poorly developed. On the other hand a young male of *subfulvus* from the Río Suno has the stripe rather poorly developed, although in other respects it is in perfect agreement with other members of its subspecies. Apparently this feature is not of absolute constancy, although in the great majority of cases it is quite serviceable as a taxonomic criterion. The presence or absence of rufous on the uropygium appears to be quite constant. The only records assignable to *subfulvus* from Perú are those from Anayacu and Pomará included in the material listed below.

Philydor erythrocercus lyra Cherrie

Philydor erythrocercus lyra Cherrie, 1916, Bull. Amer. Mus. Nat. Hist., XXXV, p. 186—6th of March Rapids, Rio Roosevelt, Brazil; ♀; Amer. Mus. Nat. Hist.

Seventy-five specimens from regions south of the Amazon, from Para to eastern Perú, can not be satisfactorily subdivided. The birds from the easternmost localities tend to approach the coloration of typical *erythrocercus*, being slightly more greenish (less brownish) olive and more yellowish (less buffy) below, though the brown wings and rufous shoulder-patch are less modified. Birds from the westernmost localities are somewhat duller above with a trace of grayish, while the skins from more central regions are brownest, reaching the maximum on the Gy-Paraná and the upper Rio Roosevelt whence the form was described. There is such a gradual transition from one extreme to the other that it is impossible to draw a definite line segregating any distinctive races and the form is best left undivided.

Records from Perú which belong to *lyra* are from Chamicuros and Jeberos.

Philydor erythrocercus ochrogaster Hellmayr

Philydor ochrogaster Hellmayr, 1917 (February), Verh. Orn. Ges. Bayern, XIII (1), p. 111—Chanchamayo, Dept. Junín, Perú; ♂; Munich Mus.

This brightly colored bird is probably best placed in the *erythrocercus* group. The cinnamomeous color of the wings is a little brighter than in *lyra* and the rufous of the uropygium perhaps a little darker, but in dorsal aspect there is much resemblance between these two forms. In ventral aspect, *ochrogaster* is more intensely colored than any other form of the group, although immature examples of *subfulvus* go far in its direction. One young male from Zamora, Ecuador, and a young female from Pomará, Perú, have the throat as strongly ochraceous as the

breast, but they have dull-colored wings and back and the rufous of the uropygium is much reduced and confined to the margins of the feathers. They belong without question to *subfulvus*, though in ventral aspect they suggest *ochrogaster*.

The dusky line from the auriculars to the base of the bill is not so strongly developed in *ochrogaster* as in *erythrocercus*, *lyra*, and *subfulvus*, but is more pronunced than in *P. ruficaudatus*.

In general, *ochrogaster* is thus intermediate between *lyra* and *subfulvus*, having the cinnamomeous wings of the former and the ochraceous under parts of the young of the latter, both in greater intensity, while the rufous of the uropygium is developed to an exactly intermediate degree. The olive tone of the head and mantle approaches the condition of true *erythrocercus* although it is not so clear in tone.

Records of *ochrogaster* from Perú are from Chanchamayo, La Gloria, Huaynapata, Marcapata, and Cosñipata, and other localities are added below.

After careful comparison of the *erythrocercus* group with *erythronotus* and *fuscipennis*, I am convinced of the close relationship existing among them. The gray wings of *erythronotus* and *fuscipennis* are reflected in the clouded remiges and upper wing-coverts of *subfulvus* which are darker than in *erythrocercus*, *lyra*, and *ochrogaster*. The ochraceous color of the under parts is similar to the hue in immature *subfulvus* and *erythrocercus*, and the bright rufescence of the hind neck and sides of neck similarly finds its counterpart. The proportions and actual measurements are much the same. The coloration of the auriculars and malar region shows the same characteristic pattern, and other details of coloration follow a similar design.

With regard to the proper differentiation of *erythronotus* and *fuscipennis*, I am unable to draw final conclusions owing to lack of Colombian material. Two specimens from the Chimbo region of northwestern Ecuador differ slightly from a series of sixteen birds from eastern Panamá by somewhat lighter and clearer coloration. On the other hand, six specimens from western Panamá are darker and deeper in coloration than those from the eastern part of the same country. Presumably the west-Panamanian birds represent *fuscipennis* and the east-Panamanian and west-Ecuadorian examples *erythronotus*, but of the latter I do not known which is more typical. Judging by plate VII, in volume XV of the 'Catalogue of Birds,' the west-Ecuadorian birds are the nearer to true *erythronotus;* the east-Panamanian series is then rather exactly intermediate between it and *fuscipennis*, though closer to *erythronotus*.

With this association, the range of the species may be divided on easily established lines. The typical form, *erythrocercus*, inhabits the north bank of the lower Amazon, reaching northward into the Guianas but apparently not west of the Rio Negro; *lyra* inhabits the entire south bank of the Amazon, reaching northern Maranhão to the eastward and extending up various tributaries to the southward, though not reaching any considerable elevation; *ochrogaster* inhabits central and southern Perú and northwestern Bolivia at slightly higher elevations than *lyra* though still within the tropical zone; *subfulvus* replaces *lyra* north of the Amazon in northern Perú and eastern Ecuador, reaching southeastern Colombia; *erythronotus* inhabits the area extending from northwestern Ecuador through central Colombia to eastern Panamá; and *fuscipennis* occupies at least the Caribbean side of western Panamá.

The resemblance of *erythronotus* and *fuscipennis* to *Philydor pyrrhodes* I believe to be purely casual and not a sign of close relationship. *P. pyrrhodes* is a widely ranging species which occupies portions of the ranges of various members of the *erythrocercus* group in addition to certain regions from which the latter are not known, but resemblance appears only in the cases of *erythronotus* and *fuscipennis* whose ranges are separate from that of *pyrrhodes*.

Specimens Examined

P. e. erythrocercus.—Brazil: Faro (Castanhal), 12 ♂, 7 ♀. British Guiana: Tumatumari, 1 ♀.

P. e. lyra.—Brazil: Rio Roosevelt, 6th of March Rapids, 1 ♀ (type); Barão Melgaço, 1 ♂; Utinga, near Pará, 2 ♂, 1 ♀; Rio Tocantins, Baião, 1 ♂; Baião (Pedral), 4 ♂, 4 ♀; Mocajuba, 2 ♀; Rio Curuã, Ilha Malocca, 1 ♂; Rio Majary, Recreio, 1 ♂; Rio Xingú, Tapará, 3 ♂, 2 ♀; Porto de Moz, 1 ♀; Villarinho do Monte, 1 ♂, 2 ♀; Rio Tapájoz, Tauary, 1 ♂; Piquiatuba, 1 ♂; Caxiricatuba, 4 ♂, 2 ♀; Igarapé Brabo, 6 ♂, 2 ♀; Limoãl, 1 ♂, 1 ♀; Rio Amazonas, Villa Bella Imperatríz (Serra de Parintins), 3 ♂, 1 ♀; (Lago Andirá), 4 ♂, 7 ♀; Rio Madeira, Igarapé Auará, 6 ♂, 5 ♀; Rosarinho (Lago Sampaio), 1 ♂; Teffé, 1 ♀. Perú: Orosa, 1 ♀; Río Ucayali, Lagarto, 1 ♂; Contamana, 1 ♀[1].

P. e. subfulvus.—Ecuador: Río Suno, above Avila, 2 ♂, 1 ♀, 1 (?); lower Río Suno, 1 ♂, 1 ♀; mouth of Lagarto Cocha, 1 ♂, 1 ♀; mouth of Río Curaray, 3 ♀; Zamora, 3 ♂; "Napo," 1 (?). Colombia: La Morelia, 1 ♂, 1 ♀. Perú: Anayacu, 2 ♂; Pomará, 1 ♀; mouth of Río Santiago, 1 ♂.

P. e. ochrogaster.—Perú: Río Tavara, 1 ♀; Marcapata, 1 ♀; Huachipa, 1 ♂[1]. Bolivia: Mission San Antonio, 1 ♂, 1 ♀.

P. e. erythronotus.—Ecuador: Bucay, 1 ♂; Chimbo, 1 (?). Panamá: Tacarcuna, 6 ♂, 6 ♀; Tapalisa, 1 ♀; Cituro, 2 ♂, 1 ♀.

P. e. fuscipennis.—Panamá: Chitrá, 1 ♀; Rio Calovévora, 2 ♂, 2 ♀; (no locality), 1 (?).

[1]Specimens in Field Museum of Natural History, Chicago.

P. ruficaudatus.—ECUADOR: mouth of Río Curaray, 1 ♂, 1 ♀; below San José de Sumaco, 1 ♂, 2 ♀; Río Suno, above Avila, 4 ♂, 2 ♀; lower Río Suno, 1 ♀; above Archidona, 1 ♀. VENEZUELA: (western) foot of Mt. Duida, 1 ♂; Caño Seco, 1 ♀. BRAZIL: Rio Guamá, Santa Maria de S. Miguel, 1 "♂" [? = ♀]; Barão Melgaço, 1 ♂. BOLIVIA: Mission San Antonio, 1 ♂; no locality (=n. Bolivia), 1 (?) (type of *A. immaculatus*). PERÚ: Río Ucayali, Lagarto, 3 ♂, 1 ♀; Río Seco, west of Moyobamba, 2 ♂; Río Tavara, 1 ♀; Candamo, 1 ♂.

Automolus infuscatus infuscatus (Sclater)

Anabates infuscatus SCLATER, 1856, Ann. Mag. Nat. Hist., (2) XVII, p. 468—upper branches of Peruvian Amazons (Verreaux collection, 1854); British Mus.

Anabates Sclateri PELZELN, 1859, Sitzungsb. Akad. Wiss. Wien, math.-naturw. Kl., XXXIV, p. 111 (in text)—new name for *Anabates infuscatus* SCLATER (preocc. errore).

The exact site where the type of *infuscatus* was obtained is uncertain, but the question is not of great importance since the birds from both banks of the Amazon in eastern Perú are alike.

Records from Perú are from Jeberos, Chayavitas, Yurimaguas, Shanusi, and "Peruvian Amazon" to which other localities are added in the list of specimens examined. There is also a record from Cosñipata, based on a skin (or skins) collected by Whitely in 1871, but the whereabouts of the specimen are unknown. It is the only record from extreme southeastern Perú.

Comparative studies have shown that *cervicalis* has a more restricted range than heretofore supposed and that the birds from the Rio Negro of Brazil and the upper Orinoco of Venezuela deserve separate recognition. The description follows.

Automolus infuscatus badius, new subspecies

TYPE from Playa del Río Base, Mt. Duida, Venezuela; altitude 550 feet. No. 273,970, American Museum of Natural History. Adult male collected November 25, 1928, by the Olalla brothers.

DIAGNOSIS.—Similar to *A. i. cervicalis* of British Guiana but back distinctly warmer brown, less olivaceous, and the rufous color of the top of the head darker; under wing-coverts duller, less brightly rufescent.

RANGE.—Southwestern Venezuela, on the upper Orinoco and Caura rivers, the vicinity of Mt. Duida, and the Cassiquiare region, ranging along the right bank of the Rio Negro, Brazil, to (near) the mouth of that stream.

DESCRIPTION OF TYPE.—Top of head slightly crested, Prout's Brown; back anteriorly warm dark Brussels Brown with a tinge of Saccardo's Umber; lower back more rufescent, gradually passing into bright Chestnut on the rump and upper tail-coverts. Lores dull whitish; no pronounced superciliary stripe but feathers above auriculars with brown edges and buffy shaft-streaks; auriculars and subocular feathers also with grayish-brown margins and pale shafts; lower margins paler and

not as sharply defined from the throat as in *A. i. infuscatus;* throat near Massicot Yellow; breast somewhat shaded with a dull brownish hue; belly dull buffy; sides and flanks light Olive Brown; under tail-coverts dull buff, tinged with cinnamomeous. Wings sooty brown, with external margins near the color of the back; upper wing-coverts a little brighter; under wing-coverts dull Cinnamon-Buff with a brownish tinge, darker on the under primary-coverts; inner margins of remiges cinnamomeous buff. Tail dark Chestnut. Maxilla blackish brown (in dried skin); mandible dull yellowish; feet dull, dark brown. Wing, 94 mm.; tail, 75; exposed culmen, 19; culmen from base, 24; tarsus, 22.

REMARKS.—Females similar to the males but averaging slightly smaller.

I have only three examples of the Guianan form, two of which are from Faro, Brazil (which has a pronouncedly Guianan avifauna), but these three agree in their characteristics and cannot be matched in a series of sixty-nine specimens of the new form. Various authors, moreover, have stated clearly that the back in *cervicalis* is olive brown (as it is in my three specimens) and it is impossible to call the color of the back in *badius* at all olive in hue. Some examples are even more warmly colored than the skin I have selected for the type, which is of average color, and though some birds, on the other hand, are a little lighter in tone, all have the warm hue that characterizes *badius*. It appears, therefore, that *cervicalis* is intermediate between *badius* and *paraensis*.

Dr. Hellmayr (1925, Field Mus. Nat. Hist. Publ., Zool. Ser., XIII (4), p. 213, footnote [c]) noted that Marabitanas and Manaos birds were more russet above than Guianan specimens of *cervicalis* but attributed the difference to postmortem change in old skins collected by Natterer. The fresh material now available shows that the character has definite existence. I have no skins from the left bank of the Rio Negro at Manaos and can not state whether the birds from that region are *badius* or, perhaps, intermediate between it and *cervicalis* of the Jamundá region. The single example from the lower Negro, across from Manaos, is typical *badius*.

SPECIMENS EXAMINED

A. i. infuscatus.—PERÚ: mouth of the Río Urubamba, 1 ♂, 1 ♀; Santa Rosa, Río Ucayali, 2 ♂, 3 ♀; Lagarto, 1 ♂, 1 ♀; Puerto Bermúdez, 3 ♂[1], 2 ♀[1]; Puerto Arturo, Yurimaguas, 1 ♀[1]; Anayacu, 1 ♂. ECUADOR: Río Suno, above Avila, 1 ♂; lower Río Suno, 1 ♂, 2 ♀; mouth of Río Curaray, 3 ♀. COLOMBIA: Florencia, 1 ♂, 1 ♀; La Morelia, 2 ♂, 1 ♀. BRAZIL: Teffé, 2 ♂, 3 ♀.

A. i. paraensis.—BRAZIL: Rio Madeira (right bank), Igarapé Auará, 1 ♂, 1 ♀; Rio Majary, Recreio, 1 ♀; Rio Tapajoz, Igarapé Brabo, 2 ♂, 3 ♀, 1 (?); Caxiricatuba, 2 ♂; Tauarý, 2 ♂, 3 ♀; Rio Xingú, Tapará, 1 ♀; Porto de Moz, 1 ♀, 1 (?);

[1]Specimens in Field Museum of Natural History, Chicago.

Villarinho do Monte, 4 ♂, 2 ♀; Rio Iriri, Bocca de Curuá, 1 ♂; Rio Tocantins, Cametá, 1 ♀; Mocajuba, 3 ♂, 1 ♀; Baião, 1 ♀; Utinga, near Pará, 1 ♂; "Upper Amazon," 1 (?).

A. i. cervicalis.—BRAZIL: Faro, 1 ♂, 1 ♀. BRITISH GUIANA: Meamu mouth, 1 ♀.

A. i. badius.—VENEZUELA: Mt. Duida, Playa del Río Base 4♂ (incl. type), 3 ♀; Foothills Camp (Pie del Cerro) 1 ♂, 3 ♀; Caño León, 1 ♂, 1 ♀; Caño Seco, 1 ♂, 1 ♀; Río Pescada, 2 ♂; (western) foot of Mt. Duida, 2 ♂; Río Caura, La Unión, 2 ♂, 1 ♀; Río Cassiquiare, El Merey, 2 ♂, 1 (?); oppoiste El Merey, 2 ♂, 5 ♀; Solano, 1 ♂; Buena Vista, 1 ♂; Río Huaynia, junction of Río Cassiquiare, 6 ♂; Río Orinoco, mouth of Río Ocamo, 3 ♂, 2 ♀; opposite mouth of Río Ocamo, 2 ♂, 1 ♀. BRAZIL: Rio Uaupés, Tahuapunto, 3 ♂; Rio Negro, Yucabi, 2 ♂, 2 ♀; Tatú, 3 ♂, 2 ♀; Tabocal, 4 ♂; Mt. Curycuryari (500 feet–2000 feet), 2 ♂, 4 ♀; Muirapinima, 1 ♀.

Automolus dorsalis Sclater and Salvin

Automolus dorsalis SCLATER AND SALVIN, 1880, P. Z. S. London, p. 158—Sarayacu, Ecuador; British Mus.

Five skins from the Río Seco, west of Moyobamba, furnish the first evidence of the occurrence of this species in Perú. One of the skins, a young male, agrees in detail with the coloration of the type of *dorsalis* as described. Two skins from eastern Ecuador, Zamora and Zuna (Río Upano), are somewhat less strongly colored on the under parts, and there are other specimens from Colombia, Ecuador, and Perú which are in normal adult plumage except for their rufescent superciliaries. In the fully adult plumage there is no trace of ochraceous color on the sides of the head nor on the throat, breast or belly. It is obvious, however, that only a single species is involved and that the differences are ontogenetic.

Dr. Hellmayr has suggested (1925, Field Mus. Nat. Hist. Publ., Zool. Ser., XIII (4), p. 215, footnote) the possibility of relationship between *dorsalis* and *infuscatus*. The material at hand rather effectively disposes of this possibility in the negative direction. Specimens of both species are at hand from several localities in Ecuador and Colombia and a comparison of the two series shows a number of differences which are not of the sort indicated by the known subspecies of *infuscatus*.

It appears that *infuscatus* has a differently shaped bill, with the outline much more decurved in lateral aspect, the maxilla narrower toward the tip, and the culmen more sharply ridged. There is no strong semilunar patch of pale coloration below the eye as in *dorsalis*, and the difference in the size of the sexes is much less pronounced. In *infuscatus infuscatus*, our material shows the males to have an average wing-length of

93.3 mm.; the females, 89.8. In *dorsalis* the wings of the males measure 96.4 as against 85.8 in the females. The contour feathers of *infuscatus* have a more compact appearance than those of *dorsalis* which are more "hairy" in texture. Other differences of color and details of pattern exist but may not be so significant as those I have mentioned. In any case the evidence clearly points to the specific distinction of the two groups.

SPECIMENS EXAMINED

A. dorsalis.—COLOMBIA: La Morelia, 1 ♂, 1 ♀; Florencia, 1 ♀. ECUADOR: Zamora, 2 ♂; Río Suno, above Avila, 2 ♀; below San José, 1 ♀; mouth of Río Curaray, 1 ♂; Zuna, Río Upano, 1 [♀]. PERÚ: Río Seco, west of Moyobamba, 3 ♂, 2 ♀.

Automolus rubiginosus watkinsi Hellmayr

Automolus watkinsi HELLMAYR, 1912 (January 25), Verh. Orn. Ges. Bayern, XI (1), p. 160—Yahuarmayo, Marcapata, Perú; ♀; Munich Mus.

Originally described from a single specimen, the characters of this form have since been substantiated by two additional examples from San Gaban and Chaquimayo in the same region of southeastern Perú.

I have not examined any specimens of this evidently well-marked subspecies, but fortunately Hellmayr's original description is sufficiently detailed to show certain characteristics that now become important for fixing the identity of a specimen from northern Perú.

According to Hellmayr's description, *watkinsi* has a light olive-brown back, with the crown and hind neck sharply defined and chestnut rufous. Since these features are not those of the north-Peruvian bird, the latter may not be referred to *watkinsi*, and since it does not belong to any other known form, it may be described as follows.

Automolus rubiginosus moderatus, new subspecies

TYPE from Río Seco, west of Moyobamba, Perú; altitude 3000 feet. No. 234,721, American Museum of Natural History. Adult male with enlarged gonads, collected July 17, 1925, by Harry Watkins; original No. 9422.

DIAGNOSIS.—Similar to *A. r. watkinsi* as described, but crown and hind neck like the back, only faintly tinged with a warmer tone, and rather sharply defined from the supra-auricular region which is strongly rufescent; back Prout's Brown instead of light Olive Brown.

RANGE.—Northern Perú, south of the lower Marañón, between the Huallaga and the upper Marañón.

DESCRIPTION OF TYPE.—Back Prout's Brown, exactly as in some examples of *A. r. nigricauda;* top of head very slightly warmer in tone, not at all sharply defined from the mantle; rump also very slightly warmer but upper tail coverts decidedly more rufescent, bright Chestnut. Lores dull buffy, with dusky tips; auriculars dull,

dark grayish brown; subocular space from base of auriculars to base of bill dull brownish, with dusky tips and a slightly rufescent tinge; supra-auricular area dark Chestnut in contrast to the color of the back of the head; this rufescence continued on the sides of the neck behind the auriculars and forward beneath them, meeting the brown of the subocular space in a definite line; thence extended across the lower throat in a much paler tint, near warm Hazel; anterior throat becoming gradually paler; chin Cinnamon × Ochraceous-Buff, with dusky tips. Breast rather definitely separated from the throat and much more olive, light Dresden Brown, darker on the sides; belly paler, more buffy; flanks darker, near Sepia; under tail-coverts more rufescent, near Auburn. Outer surface of wings Chestnut-Brown; under wing-coverts Cinnamon-Rufous; inner margins of remiges Snuff Brown. Tail dark Chestnut. Maxilla (in dried skin) dark horn-brown; mandible dull yellowish on lower margin, becoming like the maxilla along the tomia; feet blackish, with a reddish-brown tone. Wing, 88 mm.; tail, 73.5; exposed culmen, 22; culmen from base, 26.5; tarsus, 28.

REMARKS.—This bird is a definite link between the *rubiginosus* group and *nigricauda*. Compared with *nigricauda*, the upper surface is markedly similar. The back is the very same color, though the upper tail-coverts and tail are brighter rufous. The top of the head, on the other hand, is less rufescent and near the color of *cinnamomeigula*. The abdominal color is between the tones of *cinnamomeigula* and *nigricauda*, but the throat is paler than in either. The east-Ecuadorian form, *brunnescens*, is a much more rufescent bird, a deeply colored *cinnamomeigula* with the same tinge of Bay in the throat.

SPECIMENS EXAMINED

A. r. rubiginosus.—MEXICO: Jalapa, 1 ♂.

A. r. verae-pacis.—GUATEMALA: Finca Sepacuite, 4 ♂, 1 ♀; La Perla, 1 ♂.

A. r. saturatus.—COLOMBIA: Alto Bonito, 3 ♂ (incl. type), 1 (?).

A. r. rufipectus.—COLOMBIA: Chirua, Sta. Marta Mts., 1 ♂.

A. r. cinnamomeigula.—COLOMBIA: La Morelia, 1 ♂, 2 ♀.

A. r. brunnescens.—ECUADOR: Río Suno, above Avila, 2 ♂; lower Río Suno, 2 ♂; below San José, 2 ♀; mouth of Río Curaray, 1 ♂, 1 ♀.

A. r. nigricauda.—ECUADOR: Río de Oro, 1 ♂; Bucay, 1 ♀; Santa Rosa, 1 ♂.

A. r. moderatus.—PERÚ: Río Seco, west of Moyobamba, 1 ♂ (type).

Automolus ochrolaemus ochrolaemus (Tschudi)

Anabates ochrolaemus TSCHUDI, 1844 (May), Arch. Naturg., X (1), p. 295—Perú [=forest region, 10°–12° S. lat. (Tschudi, 'Fauna Peruana')=Junín region]; Mus. Neuchâtel.

This is the common form over most of Perú and I have specimens from various localities ranging from Pomará, just west of the middle Marañón, to the southeastern valleys in the Amazonian drainage. A single male from the Río Espíritu Santo, northern Bolivia, is darker above than most of the Peruvian birds, but a Pomará specimen is even

darker, though not so richly colored; on the under surface, the Pomará bird is at the maximum of color. A male from Santa Rosa, on the Upper Ucayali, is very like the Pomará skin, and there are intermediates connecting these and the paler extremes.

Farther east on the north bank of the Amazon, near the Río Napo, *ochrolaemus* is replaced by the following form.

Records of *ochrolaemus* from Perú are from Moyobamba, "Huallaga" (=between Valle and Yurimaguas?), "Upper Ucayali" (=Cashiboya?), Monterico, San Gaban, and Chaquimayo.

Automolus ochrolaemus turdinus (Pelzeln)

Anabates turdinus Pelzeln, 1859, Sitzungsb. Akad. Wiss. Wien, math.-naturw. Kl., XXXIV, pp. 110, 131—part, Barra do Rio Negro (=Manaos), Brazil (Manaos desig. by Hellmayr, 1925); Vienna Mus.

Automolus turdinus macconnelli Chubb, 1919, Bull. Brit. Orn. Club, XXXIX, p. 60—Ituribisci, British Guiana; British Mus.

A male from Puerto Indiana and a subadult female from Anayacu are the first specimens of this subspecies to be found in Perú. The form occurs, however, in adjacent parts of eastern Ecuador, on the Río Napo, and is not unexpected in Perú.

From this region, *turdinus* ranges northeastward and eastward, and is found in Amazonian Colombia, the vicinity of Mt. Duida and the upper Orinoco in Venezuela, the three Guianas, and the region north of the Amazon in Brazil, from Manaos to Obidos. There appear to be no records from the regions connecting these four areas and it is uncertain just how the continuity is effected, if it is, indeed, existent. Our extensive series of birds from the course of the Rio Negro between Manaos and the Cassiquiare contain no examples of this species, nor are there any from the lower Orinoco. Further collecting is needed to show a connection or establish a hiatus.

Specimens of this group from the south bank of the Amazon east of the Jurua, and eastward to across the Tapajoz, are somewhat different from *turdinus* though not in the direction of *ochrolaemus*. They may be known as follows.

Automolus ochrolaemus auricularis, new subspecies

Type from Caxiricatuba, Rio Tapajoz (right bank), Brazil. No. 286,789, American Museum of Natural History. Adult male collected May 15, 1931, by Alfonso M. Olalla.

Diagnosis.—Similar to *A. o. turdinus* of Manaos and adjacent regions north of the Amazon, but under parts paler, without much noticeable dusky margining of the feathers of the center of the breast; under tail-coverts duller, less pronouncedly

rufous; wing-lining averaging very slightly paler; auriculars and subocular space more uniformly deep ochraceous, with some darker brown edges apparent but without the heavy, dusky margins of *turdinus*. Differs from typical *ochrolaemus* of eastern Perú by the much paler coloration of the under parts, though the sides of the head are much the same; upper parts less warmly colored, on average.

RANGE.—South bank of the Amazon in Brazil from the right bank of the Tapajoz west at least to Teffé (no records from the left bank of the Madeira.)

DESCRIPTION OF TYPE.—Upper parts dark Saccardo's Umber or light Sepia, becoming Sanford's Brown on the lower rump and upper tail-coverts. Lores buffy, with dusky tips; above the eye a noticeable stripe of deep ochraceous, continued narrowly above the lores and obsoletely over the auriculars; auriculars deep Clay Color, a little brownish at the tips; malar region a little brighter and clearer; chin Pinkish Buff, deepening into Cinnamon-Buff on the throat; breast dull Pinkish Buff, with margins very indistinctly duller; sides darker, inclined to grayish Buffy Brown; abdomen dull Pinkish Buff; flanks like sides, deepening posteriorly into Saccardo's Umber; under tail-coverts dull Sayal Brown. Outer surface of wings Bister × Sepia; inner webs of remiges fuscous, with inner margins light cinnamomeous; under wing-coverts Ochraceous-Buff × Cinnamon; tail light Auburn. Maxilla (in dried skin) dull yellowish brown; mandible dull yellow; feet dark brown. Wing, 92.5 mm.; tail, 73; exposed culmen, 18.5; culmen from base, 23.25; tarsus, 22.

REMARKS.—The dark margins of the pectoral feathers in *A. o. turdinus* are not very pronounced at best, but in the present form they are even less noticeable, and the whole under side has a clear, pinkish buff color that is hardly clouded in the midline, though darkest laterally. Occasional examples of *auricularis* have the under tail-coverts more strongly tinged with rufescence than the type (which is of average coloration), but in such cases the change of color is likewise noticeable on the auriculars where it increases the already ponderable difference between this form and *turdinus*.

Examples from west of the type locality show a tendency toward *ochrolaemus*, increasing somewhat as the range of the latter form is approached. Even at Teffé, however, the birds appear to be closer to *auricularis* than to *ochrolaemus*.

Automolus ochrolaemus hypophaeus Ridgway

Automolus cervinigularis hypophaeus RIDGWAY, 1909, Proc. Biol. Soc. Wash., XXII, p. 72—Río Reventazon at Guayabo Station, Costa Rica.

Among the material examined for comparison are a number of specimens from western Panamá which apparently belong to this Costa Rican form, including six from Santa Fé, Veraguas. The very different *A. o. exsertus* was described from Divala, Chiriqui, and, according to material at hand, ranges westward through southern Costa Rica, but seems not to extend very far into Panamá. The specimens from Santa

Fé, though from the Pacific side of the hills, are indistinguishable from Almirante and Río Calovévora skins, and all are notably dark examples of *hypophaeus* without any suggestion of the characters of *exsertus*.

On the other hand a male bird from Río Chiman, eastern Panamá, where typical *pallidigularis* might be expected to occur, is not perfectly typical of that form but shows a dark upper surface suggesting *hypophaeus*. More material from this area is desirable.

Specimens Examined

A. o. ochrolaemus.—Perú: Pomará, 1 ♀; Río Negro, west of Moyobamba, 1 ♂, 1 ♀; Santa Rosa, Río Ucayali, 1 ♂; La Merced, 1 ♂, 1 ♀; Tulumayo, 2 ♂, 1 ♀; La Pampa, 1 ♂; Río Tavara, 3 ♀; Astillero, 1 ♀; Pachisa, 1 ♀. Bolivia: Río Espíritu Santo, mouth of Río San Antonio, 1 ♂.

A. o. turdinus.—Perú: Puerto Indiana, 1 ♂; Anayacu, 1 ♀. Ecuador: mouth of Río Curaray, 2 ♂, 1 ♀; below San José, 2 ♂, 2 ♀; Río Suno, above Avila, 3 ♀. Colombia: Villavicencio, 1 ♀; Buena Vista, above Villavicencio, 3 ♀; "Bogotá," 1 (?). Venezuela: Río Cassiquiare, El Merey, 1 ♀; (vicinity of Mt. Duida), 9 ♂, 15 ♀. British Guiana: Potaro Landing, 2 ♂; Rockstone, 1 ♀; Bonasica, 1 (?); (no locality) 1 (?). Brazil: Manaos, Campos Salles, 1 ♂, 1 ♀; Hacienda Rio Negro, 2 ♂; Faro (Castanhal, San José, Serra do Espelho, Huarancaná, and mouth of Rio Paratucú), 9 ♂, 6 ♀.

A. o. auricularis.—Brazil: Rio Tapajoz, Caxiricatuba, 1 ♂ (type); Igarapé Brabo, 3 ♂, 2 ♀, 1 (?); Limoãl, 3 ♂, 2 ♀; Tauarý, 1 ♂; Igarapé Amorin, 1 (?); Villa Braga, 1 ♂; Rio Amazonas, Villa Bella Imperatríz, Serra de Parintins, 1 ♂, 2 ♀; Rio Madeira, Igarapé Auará, 3 ♂, 1 ♀; Borba, 1 ♂, 2 ♀; Teffé, Boca Lago, 1 ♂; Santo Isidoro, 1 ♂.

A. o. pallidigularis.—Panamá: (Lion Hill), 1 ♂ (type); Chepigana, 1 ♂, 1 ♀; El Real, Río Tuyra, 1 ♂; Cituro, 4 ♂, 1 (?); Tacarcuna, 3 ♂, 2 ♀; Tapalisa, 1 ♂, 1 ♀; Río Chiman, 1 ♂; Barro Colorado Island, 1 ♂. Colombia: Honda, 1 ♂; Puerto Valdivia, 2 ♀; Malena, 1 ♂, 1 ♀. Ecuador: Esmeraldas, 1 ♀, 1 (?); Río de Oro, 2 ♂, 3 ♀.

A. o. hypophaeus.—Panamá: Almirante, 2 ♂, 3 ♀; Río Calovévora, 1 ♀; Santa Fé, Veraguas, 3 ♂, 3 ♀. Costa Rica: Bonilla, 1 ♂, 1 ♀; Atalanta, 1 ♂, 1 ♀; Aquinares, 1 ♂, 1 ♀; Hacienda La Iberia, 1 ♂; Guacimo, 1 ♂.

A. o. exsertus.—Costa Rica: Boruca, 1 ♂, 1 ♀; Pozo del Río Grande, 2 ♀; Puerto Jimenez, 1 ♀.

A. o. cervinigularis.—Nicaragua: Matagalpa, 1 ♂, 2 ♀; Los Sabalos, 1 ♂; Las Cañas, 1 ♀; Savala, 1 ♀; Tuma, 1 ♀; Río Tuma, 1 ♂; Peña Blanca, 1 ♂; Río Grande, 1 ♀; Chontales, 1 ♂; Ocotal, 1 ♀. Guatemala: Secanquim, 3 ♂, 3 ♀; San Lucas, 1 (?); Puebla, 1 (?); Chipoc, 1 (?); (no locality), 3 (?).

Automolus rufipileatus consobrinus (Sclater)

Philydor consobrinus Sclater, 1870, P. Z. S. London, p. 328—"Nova Granada int." = "Bogotá" (Villavicencio suggested by Chapman, 1917); British Mus.

Philydor rufipileatus maynanus Hellmayr, 1903, Verh. Zool. Bot. Ges. Wien, LIII, p. 220—Maynas, Perú; Vienna Mus.

I am uncertain about the distinction of *maynanus* and *consobrinus*. Birds from Perú, south of the Amazon, are consistently bright ochraceous below, while Colombian skins at hand have a slightly browner or more olivaceous tinge on the breast. Ecuadorian skins and some from southwestern Venezuela are a little paler on the under parts, but one from Venezuela is not distinguishable from central Peruvian birds. Bolivian examples for the most part are like the east-Peruvian though one or two show paler tints below. Other minor variations occur throughout the series, involving the color of the back and the top of the head and the size; Bolivian and central Peruvian birds average a little larger than skins from north of the Amazon. With more material from the type locality of *consobrinus* the distinction of *maynanus* may become more apparent, but at the moment I am unable to find sufficient difference to warrant this recognition.

Peruvian records are from Maynas, Moyabamba, and Pebas.

Specimens Examined

A. r. rufipileatus.—Brazil: Rio Tocantins, Baião, 6 ♂, 3 ♀.

A. r. consobrinus.—Colombia: Villavicencio, 4 ♀. Ecuador: mouth of Río Curaray, 2 ♂; mouth of Lagarto Cocha, 1 ♂. Perú: Puerto Indiana, 1 ♀; Puerto Melendez, 1 ♀; Río Ucayali, Santa Rosa, 6 ♂, 1 ♀; Lagarto, 1 ♂, 1 ♀; mouth of Río Urubamba, 1 ♂. Bolivia: Todos Santos, 1 ♂, 1 ♀; mouth of Río San Antonio, 1 ♀; Mission San Antonio, 3 ♂, 1 ♀. Venezuela: Mt. Duida, Esmeralda, 2 ♂; Caño León, 2 ♂, 1 ♀; Río Cassiquiare, El Merey, 1 ♂; opposite El Merey, 1 ♀; Río Orinoco, opposite mouth of Río Ocamo, 1 ♂, 1 ♀.

Automolus ruficollis ruficollis (Taczanowski)

Anabazenops ruficollis Taczanowski, 1884, 'Orn. Pérou,' II, p. 160—Paucal, Perú; Warsaw Mus.

I agree with Chapman that *ruficollis* is subspecifically distinct from *celicae* of southwestern Ecuador. Ten specimens of the latter, including the type, are noticeably brighter in general coloration than twelve skins from Taulis, Seques, and Chugur; the Taulis and Seques birds are virtual topotypes of *ruficollis*. Other differences which distinguish *celicae* include broader and less prominently marginal pectoral stripes, often whiter and less strongly dusky-margined auriculars, more rufescent crown, deeper ochraceous supra-loral line, paler wings and tail, and brighter rufous crissum.

Six skins from Palambla and one from nearby El Tambo are equivocal. The average is lighter than typical *ruficollis* although some are a perfect match and though the lighter ones approach the paleness of *celicae* they lack the warmth of color characteristic of that form. The

pectoral streaks are rather definite in shape and the lateral under parts rather more olive-tinged than in *celicae*. On the whole, therefore, I believe they are best associated with typical *ruficollis* although their relationship to *celicae* is evident.

I am unable to determine any very close relatives of this group although I believe that the *ochrolaemus* group is the nearest ally.

Specimens Examined

A. r. ruficollis.—Perú: Taulis, 1 ♂, 4 ♀, 1 (?); Seques, 3 ♂; Chugur, 2 ♂, 1 ♀; El Tambo, 1 ♂; Palambla, 3 ♂, 3 ♀.

A. r. celicae.—Ecuador: Celica, 3 ♂, 3 ♀; Guachanamá, 1 ♂; Cebollal, 1 ♂; Alamor, 1 ♂, 1 ♀.